

Serial No. 10/783,499

Docket No. Zipfel 1

RECEIVED
CENTRAL FAX CENTERREMARKS

SEP 28 2006

The outstanding rejection of the claims now in the application is respectfully traversed, and reconsideration is requested.

Applicant hereby renews the arguments made in applicant's Response to Office Action dated 06/19/2006.

The examiner has kindly provided a response to the arguments previously presented by applicant. See pp. 9-10 of the Office action dated 7/28/2006. However, based on the examiner's response, applicant does not believe that the points that applicant raised were fully appreciated.

**"The sum of the values of the current through said each load
is substantially constant"**

Applicant's remarks of 7/28/2006 pointed out that if it were true in Prokin "the sum of the values of the current through said each load is substantially constant" then no current would be flowing through Prokin's power supply 1. This is a simply matter of Kirchoff's Current Law applied at the node that joins Prokin's power supply 1 to Prokin's two loads. But with no current flowing through power supply 1, no power or energy would be supplied to the loads. This, of course, cannot be the case, since without any energy going to the loads, they wouldn't be doing anything useful. This is unequivocal proof that it cannot be true that Prokin meets the limitation that "the sum of the values of the current through said each load is substantially constant." Thus claim 1 distinguishes applicant's invention from Prokin. And the claims having similar recitations likewise distinguish applicant's invention from Prokin.

The Office action states on this point that "[t]he examiner respectfully disagrees" but does not show or explain how it is possible for the sum of the values of

Serial No. 10/783,499

Docket No. Zipfel 1

the current through each load in Prokin to be substantially constant without the power supply current being zero which, again, would make no sense.

See applicant's more detailed explanation of this point on p. 14 of applicant's remarks of 06/19/2006, which applies to other claims, as well, as discussed in those remarks.

Contrary to what is stated in the "Response to Arguments," applicant did not say that the *structure* of applicant's power supply 31 is what causes applicant's circuits to have the feature that "the sum of the values of the current through said each load is substantially constant."

Applicant's comments were directed to the fact that the very presence of power supply 31 is what allows for applicant's circuits to meet this limitation while Prokin's circuits do not, even though there is a lot of other similarity between the topologies of Prokin's circuits and the circuits of applicant's embodiments. Note that applicant's embodiments have two power supplies, one of which corresponds generally to the single power supply in Prokin and the other of which—e.g., power supply 31—has no corresponding power supply in Prokin.

It is true that applicant has not mentioned or claimed any power supply in many of the claims. However, applicant's discussion about the power supplies was presented simply to show how it was possible for applicant's circuits to meet the limitation "the sum of the values of the current through said each load is substantially constant" while it was not possible for Prokin's circuits to do so.

More specifically, this whole line of argument was presented simply to illustrate applicant's disagreement with what appears to be the very crux of the Office action's position in rejecting applicant's claims in view of Prokin. Specifically, the Office action's central position is understood to be that Prokin's circuit necessarily functions the same as applicant's circuit because of their structural similarity. Specifically, it should be recalled that the Office action had stated that because Prokin "has the same structure connected in the same manner as that of applicant's invention,

Serial No. 10/783,499

Docket No. Zipfel 1

the claimed functional or narrative statements [in applicant's claims] are clearly met by Prokin."

Applicant's reference to the power supplies was only to point out why one cannot jump to this conclusion. That is, applicant's reference to the power supplies was for the purpose of showing why it is not accurate to say that the functional recitations in applicant's claims are met by Prokin just because of certain structural similarities. Specifically, because the power supply configuration of applicant's illustrative circuits is different from Prokin's, then it is possible for Prokin to *not* meet the functional recitation in question. That is, the fact that Prokin has only one power supply, while applicant's illustrative embodiments have two power supplies, makes it indeed possible for applicant's circuits to meet the limitation "the sum of the values of the current through said each load is substantially constant" while Prokin circuits do not meet that limitation.

Thus the ultimate reason for applicant's presenting the power supply discussion was simply to prove that Prokin cannot be said meet the limitation "the sum of the values of the current through said each load is substantially constant." Applicant did not to suggest or imply that anything about the power supplies is necessarily part of that which applicant regards as the invention.

To repeat, applicant is relying on the limitation that "the sum of the values of the current through said each load is substantially constant." Applicant has shown how it is impossible to say that Prokin meets the limitation. The Office action states on this point that "[t]he examiner respectfully disagrees" but does not show or explain how applicant's circuit analysis is wrong. That is, the Office action does not show how it is possible for the sum of the values of the current through each load in Prokin to be substantially constant without the power supply current being zero since those three elements meet at a common node. If Prokin's power supply current *were* zero, then no energy would be being supplied to the loads and nothing useful would be going on. Since something useful is obviously going on, the power supply current in Prokin must be non-zero. Therefore, contrary to applicant's claim 1, Prokin cannot

Serial No. 10/783,499

Docket No. Zipfel 1

RECEIVED
CENTRAL FAX CENTER

SEP 28 2006

possibly meet the limitation that "the sum of the values of the current through said each load is substantially constant" without violating the rule of circuit theory that the currents at a node must sum to zero.

Other Points

Applicant's comments vis-à-vis the various differential and common mode signals was, again, to support applicant's arguments that the underlying theory of the Office action is not correct. That is, that discussion was presented in order to prove that it is not correct to say that because Prokin

has the same structure connected in the same manner as that of applicant's invention, the claimed functional or narrative statements [in applicant's claims] are clearly met by Prokin.

The point is that since the PWM signals of the Prokin references are different from those used in applicant's embodiments, one cannot jump to the conclusion that all of the functional limitations in applicant's claims are met by the Prokin references. Thus, specifically, one cannot jump to the conclusion that the sum of the values of the currents through the loads in Prokin is substantially constant.

As relates to the common mode question, applicant did not say that there was no common mode per se in Prokin. Applicant said that since the switching frequency components in the Prokin references are out-of-phase with one another, there are no substantial common mode switching components to cancel. This was pointed out to demonstrate that there would be no reason or purpose served in putting a common mode inductor (or any other signal-canceling means) in the Prokin circuits. This, in turn, was presented as a further basis for the allowance of claims 24-26, 32, 33, 36-39 and 63-68.

Serial No. 10/783,499

Docket No. Zipfel
RECEIVED
CENTRAL FAX CENTER
SEP 28 2006

Withdrawn Claims

In view of the foregoing discussion indicating that the claims currently under examination are allowable, it is respectfully requested that the withdrawn claims be rejoined in this case and be allowed along with the claims now pending.

Reconsideration is requested.

George G. Zipfel, Jr. et al

By: 

Ronald D. Slusky
Attorney for Applicant
Reg. No. 26,585
(212) 246-4546

Office of Ronald D. Slusky
Registered Patent Attorney
353 West 56th St—Suite 5L
New York, N.Y. 10019
Date: 9/28/2006